What is claimed is:

1. An electron-beam device, comprising:

a beam generator that generates an electron beam;

an objective lens that focuses the electron beam on an object;

at least one detector that detects at least one of: electrons scattered on the object and electrons emitted by the object; and

at least one adjustable diaphragm which is allocated to the at least one detector.

2. The electron-beam device as recited in Claim 1, wherein a position of the diaphragm in the electron-beam device is adjustable.

3. The electron-beam device as recited in Claim 2, further comprising a positioning device disposed in the electron-beam device for moving the position of the diaphragm.

4. The electron-beam device as recited in Claim 1, wherein the diaphragm includes at least one diaphragm opening for the passage of the electrons and wherein a size of the diaphragm opening is adjustable.

5. The electron-beam device as recited in Claim 1, further comprising scanning means for directing the electron beam toward the object.

6. The electron-beam device as recited in Claim 5, wherein the scanning means includes at least two scanning elements per plane.

7. The electron-beam device as recited in Claim 1, wherein the electron-beam device includes an optical axis and wherein the diaphragm and the detector are positioned extra-axially to the optical axis.

8. The electron-beam device as recited in Claim 1, further comprising at least one deflection device having at least one deflector for directing the electron beam from and toward an optical axis.

9. The electron-beam device as recited in Claim 8, wherein the deflector is a magnetic unit.

10. The electron-beam device as recited in Claim 8, wherein the deflector is arranged in the electron-beam device in a region between the object and the beam generator.

11. The electron-beam device as recited in Claim 8, wherein the deflection device includes a first deflector that directs the electron beam out of the optical axis and a second deflector that directs the electron beam into the optical axis.

12. The electron-beam device as recited in Claim 8, wherein the deflection device includes a first deflector that directs the electron beam out of the optical axis, a second deflector that steers the electron beam toward the optical axis, and a third deflector that directs the electron beam into the optical axis.

13. The electron-beam device as recited in Claim 1, wherein the detector includes at least two detection regions.

14. The electron-beam device as recited in Claim 1, wherein the electron-beam device includes at least one additional detector.

15. The electron-beam device as recited in Claim 14, wherein said at least one additional detector forms the diaphragm.

16. The electron-beam device as recited in Claim 1, further comprising a reflector arranged on the detector and which reflects the electrons scattered by the object or emitted by the object on the detector.

17. The electron-beam device as recited in Claim 16, wherein the detector includes an opening, and wherein the detector is arranged in the electron-beam device in such a way that an optical axis of the electron beam runs through the opening, and the reflector is accommodated in the opening of the detector.

18. The electron-beam device as recited in Claim 16, wherein the detector includes an opening into which a metallic tube is inserted and the reflector is accommodated in the metallic tube.

19. The electron-beam device as recited in Claim 1, wherein the diaphragm includes an area on which lateral faces are arranged that stretch toward a point situated above the area.

20. The electron-beam device as recited in Claim 19, wherein the diaphragm is at least partially conical.

21. The electron-beam device as recited in Claim 1, wherein the diaphragm is at least partially discoid.

22. The electron-beam device as recited in Claim 1, wherein the diaphragm is made of a material having a high atomic number.

23. The electron-beam device as recited in Claim 1, wherein the diaphragm includes at least one opposing field grid.

24. The electron-beam device as recited in Claim 1, wherein the electron-beam device includes at least one additional detector, and wherein at least one of the detectors includes at least one opposing field grid.

25. The electron-beam device as recited in Claim 24, wherein each detector includes least one opposing field grid.

26. The electron-beam device as recited in Claim 1, further comprising an electron energy controlling device that accelerates and slows down the electrons of the electron beam to specified energies and also maintains the energy after acceleration.

27. The electron-beam device as recited in Claim 1, wherein the detector detects electrons backscattered on the object.

28. A detector system for detecting electrons, comprising:

at least one detector; and

a reflector disposed on said detector and which reflects electrons onto the detector.

29. The detector system as recited in Claim 28, wherein the detector includes an opening and the reflector is accommodated in the opening of the detector.

30. The detector system as recited in Claim 28, wherein the detector includes an opening into which a metallic tube is inserted and the reflector is accommodated in the metallic tube.

31. The detector system as recited in Claim 28, wherein the reflector includes an area on which lateral faces are arranged that stretch toward a point situated above the area.

32. The detector system as recited in Claim 31, wherein the reflector is at least partially conical.

33. The detector system as recited in Claim 28, further comprising a diaphragm connected upstream from the detector and which selects electrons.

34. The detector system as recited in Claim 33, wherein the diaphragm is designed as another detector for detecting electrons.

35. The detector system as recited in Claim 28, wherein the diaphragm is made of a material having a high atomic number.

36. The detector system as recited in Claim 28, wherein the reflector is made of a material having a high atomic number.

37. The electron-beam device of Claim 16, wherein said reflector is designed as the diaphragm.

38. A method of detecting electrons, comprising:

generating an electron beam;

focusing the electron beam on an object;

detecting electrons scattered on the object or emitted by the object; and

selecting a portion of the electrons according to electron energy.

39. The method of claim 38, wherein said portion of the electrons selected according to electron energy are backscattered electrons.

40. The method of claim 38, wherein said portion of the electrons selected according to electron energy are secondary electrons.

41. The method of claim 38, wherein said selecting is performed using an adjustable diaphragm.

42. The method of claim 41, wherein the diaphragm includes at least one diaphragm opening for the passage of the electrons and wherein a size of the diaphragm opening is adjustable.

43. The method of claim 41, wherein the diaphragm includes at least one opposing field grid.

44. The method of claim 38, further comprising directing the electron beam from and toward an optical axis.

45. The method of claim 38, wherein said selecting is performed according to phase space of said portion of the elections.